



Nevada Well Driller's Annual Newsletter June 2011

State Of Nevada
Division of Water
Resources

Service Since
1903

Message from Jason King, State Engineer

I hope this newsletter finds you healthy and busy! Over the past six months, our office has undergone some reorganization to best match personnel with their skills and experience. In doing so, Tom Gallagher is now heading up our new section that oversees all well drilling operations statewide. As many of you know, Tom has been with the Division for over thirty years and has a comprehensive understanding of well construction and drilling practices, statutory and regulatory requirements, as well as the regional hydrology of the Basin and Range. Our Organizational Chart and contact information is on our web page at water.nv.gov. Please feel free to call him, or his staff, anytime with questions regarding all well drilling aspects.

I thought it might be of interest to you to know what types of wells are being worked on (drilled, deepened, or plugged) and where that work is occurring statewide. A query of our well log database for the 2010 calendar year indicates that 2,718 wells were drilled, deepened or plugged. By manner of use, the top 5 types of wells being drilled, deepened or plugged were: monitoring wells (1,376), dewatering wells (552), domestic wells (483), municipal wells (95) and irrigation wells (56). In terms of hydrographic basins, the top 5 basins where the wells are being worked on are: Las Vegas Valley (835), Lower Moapa Valley (390), Truckee Meadows (133), Carson Desert (112) and Mason Valley (91). And finally, the top 5 counties where wells are being worked on are: Clark (1,285), Washoe (264), Humboldt (196), Elko (155) and Lyon (125).

There is not enough room in this newsletter to apprise you on all the various bills in this legislative session that deal with water, however after the end of the session, we will send out an email that will highlight all the statutory changes. In terms of the budget, like all State agencies, the Division is proposed to be cut due to Nevada's severe economic condition. However, I am optimistic that Water Resources will be able to provide the necessary day-to-day services to ensure our statutory obligations are being met. Having said that, and depending on how long these budget cuts are in place, the agency's ability to reduce the number of backlogged water right applications will be tested. However, I have an excellent staff that I know will continue to both timely respond to your inquiries and submittals and tackle the large workload.

We have received positive feedback from numerous people regarding our mass emailings on pertinent topics that arise from time to time – whether they are issues related to Division policy or instructions on how to fill out water right applications. Be assured that this type of communication does not take the place of any statutory notification, but simply is a quick and effective way to get relevant information out to a large targeted audience. If you would like to receive these emails and have not submitted your email address to us, please send an email to waterinfo@water.nv.gov with the words "Add Me to Your Water Professionals List" and it will be added to the list for future mailings.

As always, thank you for all the good work you do in helping protect and manage the water resources in our state!

Contact Directory

Carson City Office
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901 S. Stewart St., Suite 2002
Carson City, NV 89701

Southern Nevada Office
702-486-2770

Division of Water Resources
400 Shadow Lane
Suite 201
Las Vegas, NV 89106

Water Well & Drilling Questions

Carson City Office
Hamilton Reed
Joseph Di Tucci
Todd Alfrey

Southern Nevada Office
Tracy Geter
Steven Martinez

Drillers License, Exam and Continuing Education Questions

Carson City Office
Joseph Di Tucci
Sue Gilbert

Southern Nevada Office
Tracy Geter

Other Useful Contacts Division of Environmental Protection

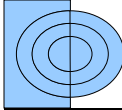
Carson City Office
Water Pollution Control
Jeryl Gardner (775) 687-9423 ndep.nv.gov

Nevada State Contractors Board

Henderson Office Reno Office
(702) 486-1100 (775) 688-1141

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**You can view the web for your
carryover CEU's**

Just go to our website at water.nv.gov, click on the "Programs" tab. Under the "Well Drillers" topic, click on the "2010 Carryover of Driller's CEU credits".

**CHECK OUT OUR
NEW
WEB SITE
water.nv.gov**

Statewide Well Driller's Advisory Board Members

Advisory Board Member's Name	License Number	Company	Location
Roger Thrall	1132	Aqua Drilling Company	Reno, NV
Fred B. Allen III	1301	Allen Drilling, Inc.	Las Vegas, NV
Gary (Layne) Harris	1698	Boart Longyear	Elko, NV
Daniel Kohlman (alternate)	2193	Boart Longyear	Elko, NV
Harlen (Andy) Andresen (alternate)	1028	Andresen Exploration Drilling	Reno, NV

Upcoming Well Drillers Exam Dates**Las Vegas Well Drillers Exam Dates**

Wednesday August 3, 2011
Thursday November 3, 2011

Carson City Well Drillers Exam Date

Thursday August 4, 2011
Wednesday November 2, 2011

The Well Drillers Exam consists of three parts:

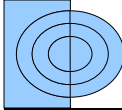
- 1.) A written examination to determine the applicant's knowledge of the rules and regulations for drilling wells in the State of Nevada.
- 2.) Identification of a well location on a topographic map by full legal description.
- 3.) An oral interview by the Statewide Well Driller's Advisory Board regarding the applicant's experience and knowledge of general drilling practices.

There is limited seating at each examination. It is essential that each potential well driller appear for the scheduled exam date. Notices for the exam are sent out approximately four weeks prior, and it is up to the applicant to schedule vacations, work load or other necessities around the scheduled exam date.

Companies that have employees scheduled for the examination should make the necessary provisions for their employees to take the time to prepare for and pass the examination.

Does this class qualify for Nevada Credits?

Unsure of the Nevada CEU credit value for an upcoming workshop, class or seminar? Prior to attending, you may submit all pertinent information along with a "Request for a Program or Course Accreditation" form (obtained from our web site in the forms room). Staff from the Office of the State Engineer will review each submittal and notify you before hand if the workshop, class or seminar is Nevada CEU credible. It's that easy. No worry, no fuss. All CEU's must be approved by the Nevada Division of Water Resources. This year and all subsequent years require 8 CEU's for renewal of a Nevada Well Driller's License. Any CEU's submitted over that amount, up to a maximum of 4 CEU's, will be carried over to the next renewal period.



Organic Materials and Wells in the State of Nevada

During the oral interview section of the Well Driller's Exam, when asked what they would use as "Lost Circulation Materials" or as fill to plug a well or borehole in the State of Nevada, the answer that applicants often give is unfortunately organic materials. Organic materials (cotton seed hulls, newspaper, etc) **cannot** be used in a well in the State of Nevada.

Only non organic drilling fluids, "Lost Circulation Materials," uncontaminated fill material (clean dirt, cuttings, etc.) or any of these plugging materials (cement grout, neat cement, concrete grout or bentonite grout) can be used in a well in the State of Nevada.

No organic material can be used.

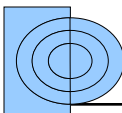
Well Drillers Licensed in the State of Nevada

The Statewide Well Driller's Advisory Board recommended to the State Engineer that licenses for 22 new well drillers be approved in 2010-2011 (listed below). As of May 2011, there were a total of 380 licensed well drillers in the State of Nevada.

In the previous year 2009-2010, there were 19 newly licensed well drillers and a total of 382 licensed drillers in the State of Nevada.

All are licensed as water well drillers but some are restricted to certain class or types of work e.g., M = monitor wells, ABDS = shallow dewater wells, R&P = recondition and plugging.

License Number	Driller's Name	License Number	Driller's Name
2415-M	Wayne Woodward	2426	Joshua McManus
2416	William Hansen	2427	Eric Anderson
2417	Clark Vought	2428-M-LTD	Timothy Smith
2418	Hugo Dala Mora	2429	Jacob Mulberry
2419-LTD	Stephen Raber	2430	Alan Winebarger
2420	Neil Hake	2431	David Turgeon
2421	Reese Johnson	2432	Michael Thomas
2422-M	Thomas Scott	2433	Kevin Coy
2423	Ricky Wilson	2434-M	Ken Phillips
2424-M	James Cantrall	2435-M	Luis Torres
2425-M	Jason Hernandez	2436	Nate Little



Nebraska Grout Study Results Released

In 1999 a coalition of Nebraska agencies initiated a study to rate the performance of various mixtures of well grout products. The study, *The Nebraska Grout Task Force: In Situ Study of Grout Materials 2001-2006 and 2007 Dye Tests*, involved the construction of 63 wells at five different sites with clear casing so the grouts could be videotaped over the test duration and concluded with a dye penetration test to estimate the long term effectiveness of the grout.

For additional information refer to <http://nebraskamaps.unl.edu>. The study indicated that Cement-sand and Bentonite chips preformed the best. The complete ranking of all test materials is shown in the Table below.

Rank	Grout Type	NAC Minimums
Best - 1	Cement-sand	7.0 gal. water - 534.060
2	Bentonite chip	
3	Neat cement – 7 gal. water	5.2 gal. water – 534.150 (1)
4	Concrete	7.0 gal. water – 534.070
5	Neat cement – 6 gal. water	5.2 gal. water - 534.150(1)
6	Cement-bentonite	7.8 gal. water - 534.150(2)
7	Bentonite slurry greater than 20% solids	
8	Geothermal sand – approx 60% solids	
9	Bentonite slurry equal to 20% solids	
10	Geothermal – approx. 20% solids	
Worst - 11	Bentonite slurry less than 20% solids	12.1 % solids – 534.042

Some interesting findings from the study were:

1. How fast [days] grouts in the unsaturated zone shrank and cracked, even with high solids.
2. How well bentonite chip grouts performed in the unsaturated zone.
3. The need for full interval grouting - from the top of the production zone up.
4. Cement grout did not bond to plastic well casing. The cement cures and shrinks, and pulls away from the casing and becomes a direct conduit.

As a result of the study Nebraska Regulators are proposing regulation revisions to:

1. Require an increase percentage of solids in grouts.
2. Requiring high-solids seal on top of the water table to protect ground water.
3. Requiring a combination of high solids fill to the surface seal.
4. Not to allow slurry bentonite for grouting closed loop systems.

One of the missions of the Division of Water Resources is to protect the waters of the state; therefore, Nevada is also reviewing our well plugging standards/material specifications and drilling regulations for updating, hopefully next year. If you have suggestions, comments or recommendations for editing any of the existing regulations, please submit them in writing to the well drilling staff and we will seriously consider all submissions.